

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:           Shilin Chen  
Filing Date:                   January 27, 2004  
Title:                           FORCE-BALANCED ROLLER-CONE BITS, SYSTEMS,  
                                      DRILLING METHODS, AND DESIGN METHODS

**MAIL STOP PATENT APPLICATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**INFORMATION DISCLOSURE STATEMENT**

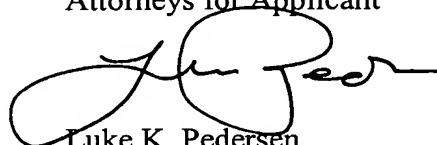
Applicant respectfully requests, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form, and previously cited in U.S. Application Serial No. 10/383,805 by Applicant and entitled "Force-Balanced Roller-Cone Bits, Systems, Drilling Methods, and Design Methods," be considered and cited in the examination of the above-identified continuation patent application. Pursuant to 37 C.F.R. § 1.98(d), copies of these references are not being furnished. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

Also, pursuant to Manual of Patent Examining Procedures § 2001.06(c), Applicant submits that the subject matter of the instant Application is involved in Civil Action No. 4-02CV269 in the United States District Court for the Eastern District of Texas, Sherman Division, styled *Halliburton Energy Services, Inc. v. Smith International, Inc.* (the "Litigation"). The attached PTO-1449 form includes documents relating to the Litigation. As stated above, Applicant requests that such documents be considered and cited in the examination of the above-identified patent application. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that these references qualify as prior art or that these references are material to the patentability of the present application.

Pursuant to 37 C.F.R. § 1.97(b), no fee is believed due. If, however, Applicant has overlooked the need for a fee, the Commissioner is hereby authorized to charge any underpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.  
Attorneys for Applicant



Luke K. Pedersen  
Reg. No. 45,003

Date: January 27, 2004

CORRESPONDENCE ADDRESS: Customer No. **31625**

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<b>PTO-1449</b>  <b>Information Disclosure Citation In an Application</b>	Application No.		Applicant(s) <b>Shilin Chen</b>	
	Docket Number <b>074263.0211 (SC-98-025 C3-B)</b>	Group Art Unit <b>Unassigned</b>	Filing Date <b>January 27, 2004</b>	

### U.S. PATENT DOCUMENTS

		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	A	1,847,981	03/01/1932	C.E. Reed	--	--	07/23/1930
	B	2,117,679	05/17/1938	C.E. Reed	255	71	12/27/1935
	C	2,122,759	07/05/1938	F.L. Scott	255	71	07/16/1936
	D	2,132,498	10/11/1938	H.C. Smith	255	71	07/22/1936
	E	2,165,584	07/11/1939	H.C. Smith et al.	255	71	07/22/1936
	F	2,230,569	02/04/1941	J.H. Howard et al	255	71	12/20/1939
	G	2,496,421	02/07/1950	J.C. Stokes	255	71	05/07/1946
	H	2,728,559	12/27/1955	E.G. Boice et al.	255	334	12/10/1951
	I	2,851,253	09/09/1958	E.G. Boice	255	347	04/27/1954
	J	4,187,922	02/12/1980	Phelps	175	374	05/12/1978
	K	4,334,586	06/15/1982	Schumacher	175	374	06/05/1980
	L	4,343,371	08/10/1982	Baker III, et al	175	329	04/28/1980
	M	4,393,948	07/19/1983	Fernandez	175	374	04/01/1981
	N	4,408,671	10/11/1983	Munson	175	377	02/19/1982
	O	4,427,081	01/24/1984	Crawford	175	376	01/19/1982
	P	4,611,673	09/16/1986	Childers et al	175	340	11/21/1983
	Q	4,657,093	04/14/1987	Schumacher	175	353	02/03/1982

### FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	R	SU 1768745 A1	10/15/1992	SU	E 21 B	10/16	X	
	S	SU 1441051 A2	11/30/1988	SU	E 21 B	10/16	X	
	T	EP 0511547 A2	04/14/1992	EPO	E 21 B	10/16	X	
	U	EP 0511547 A3	04/14/1992	EPO	E 21 B	10/16	X	
	V	EP 0511547 B1	04/14/1992	EPO	E 21 B	10/16	X	

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

U.S. PATENT AND TRADEMARK OFFICE

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		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	W	4,815,342	03/25/1989	Brett et al.	76	108	12/15/1987
	X	4,848,476	07/18/1989	Deane et al	175	340	02/29/1988
	Y	5,137,097	08/11/1992	Fernandez	175	228	10/30/1990
	Z	5,197,555	03/30/1993	Estes	175	374	05/22/1991
	AA	5,224,560	07/06/1993	Fernandez	175	374	05/18/1992
	AB	5,311,958	05/17/1994	Isbell et al	175	341	09/23/1992
	AC	5,318,136	06/07/1994	Rowsell et al	175	24	03/06/1991
	AD	5,341,890	08/30/1994	Cowthorne et al	175	374	01/08/1993
	AE	5,370,234	12/06/1994	Sommer, Jr. et al	209	44.1	11/08/1991
	AF	5,372,210	12/13/1994	Harrell	175	431	10/12/1993
	AG	5,394,952	03/07/1995	Johns et al	175	332	08/24/1993
	AH	5,415,030	05/16/1995	Jogi et al.	73	151	04/08/1994
	AI	5,416,697	05/16/1995	Goodman	364	422	07/31/1992
	AJ	5,421,423	06/06/1995	Huffstutler	175	374	03/22/1994
	AK	5,704,436	01/06/1998	Smith et al	175	27	03/25/1996

### FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL	GB 2241266 A	08/28/1991	GB	E21B	10/46	X	

		OTHER DOCUMENTS (Including Author, Title, Source, and Pertinent Pages)	DATE
	AM	MA Dekun, <i>The Operational Mechanics of the Rock Bit</i> , Petroleum Industry Press, Beijing, China, (1996)	
	AN	D. Ma, D. Zhou & R. Deng, <i>The Computer Stimulation of the Interaction Between Roller Bit and Rock</i> , (1995)	
	AO	Shilin Chen, <i>Linear and Nonlinear Dynamics of Drillstrings</i> , (1994-1995)	
	AP	D. Ma, & J.J. Azar, <i>Dynamics of Roller Cone Bits</i> , (12/1985)	
	AQ	D.K.Ma & S.L. Yang, <i>Kinematics of the Cone Bit</i> , (06/1985)	
	AR	Dma & J.J. Azar, <i>A New Way to Characterize the Gouging-Scraping Action of Roller Cone Bits</i> , (1989)	
	AS	Russian bit catalog listing items "III 190,5 T-11B-1" and "III 109,5 TKZ-11B", (prior 1997)	
	AT	L.E. Hibbs, Jr., et al, <i>Diamond Compact Cutter Studies for Geothermal Bit Design</i> , (Nov. 1978)	

EXAMINER

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		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	AU	5,715,899	02/10/1998	Liang et al	175	374	02/02/1996
	AV	5,730,234	03/24/1998	Putot	175	50	05/14/1996
	AW	5,794,720	08/18/1998	Smith et al	175	40	03/25/1996
	AX	5,812,068	09/22/1998	Wisler et al	340	855.5	12/12/1995
	AY	5,813,480	09/29/1998	Zaleski, Jr., et al	175	40	12/03/1996
	AZ	5,813,485	09/29/1998	Portwood	175	430	06/21/1996
	BA	5,839,526	11/24/1998	Cisneros, et al.	175	431	04/04/1997
	BB	6,002,985	12/14/1999	Stephenson	702	13	05/06/1997
	BC	6,012,015	01/04/2000	Tubel	702	6	09/18/1997
	BD	6,021,377	02/01/2000	Dubinsky et al	702	9	10/23/1996
	BE	6,044,325	03/28/2000	Chakravarthy et al	702	7	07/21/1998
	BF	6,057,784	05/02/2000	Schaaf et al	340	854.4	09/02/1997
	BG	6,095,262	08/01/2000	Chen	175	57	08/31/1999
	BH	6,109,368	09/29/2000	Goldman et al	175	39	11/13/1998
	BI	6,213,225	04/10/2001	Chen	175	57	08/31/1999
	BJ	6,241,034	06/01/2001	Steinke et al	175	331	09/03/1998
	BK	6,401,839	06/01/2002	Chen	175	57	03/10/2000

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							YES	NO
	BL							
	BM							

		OTHER DOCUMENTS (Including Author, Title, Source, and Pertinent Pages)	DATE
	BN	Adam T. Bourgoyne Jr et. al., " <i>Applied Drilling Engineering</i> ", Society of Petroleum Engineers Textbook Series (1991)	
	BO	J. P. Nguyen, " <i>Oil and Gas Field Development Techniques: Drilling</i> " (translation 1996, from French original 1993)	

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U.S. PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	BP	6,412,577	07/02/2002	Chen	175	57	08/01/2000
	BQ	6,527,068	03/01/2003	Singh et al	175	431	08/16/2000
	BR						

FOREIGN PATENT DOCUMENTS							
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES      NO
	BS						

LITIGATION DOCUMENTS		DATE
BT	Plaintiff's Original Complaint for Patent Infringement and Jury Demand, filed September 6, 2002 in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 4 pages	09/06/2002
BU	Answer and Counterclaim of Smith International, filed March 14, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 6 pages	03/14/2003
BV	Response of Plaintiff and Counterclaim Defendant to Defendant's Counterclaim of Declaratory Judgment, filed April 3, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 3 pages	04/03/2003
BW	First Amended Answer and Counterclaim of Smith International, filed October 9, 2003, in the United States District Court for the Eastern District of Texas, Sherman Division, Civil Action No. 4-02CV269, <i>Halliburton Energy Services, Inc. v. Smith International, Inc.</i> , 8 pages	10/09/2003

OTHER DOCUMENTS (Including Author, Title, Source, and Pertinent Pages)		DATE
BX	"Making Hole", part of Rotary Drilling Series, edited by Charles Kirkley (1983)	
BX	"Drilling Mud", part of Rotary Drilling Series, edited by Charles Kirkley (1984)	
BZ	H.G. Benson, "Rock Bit Design, Selection and Evaluation", presented at the spring meeting of the Pacific Coast District, American Petroleum Institute, Division of Production, Los Angeles, May, 1956	
CA	J.C. Estes, "Selecting the Proper Rotary Rock Bit", Journal of Petroleum Technology, Nov., 1971, pp1359-1367	
CB	Sikarskie, et. al., "Penetration Problems in Rock Mechanics", American Society of Mechanical Engineers, Rock Mechanics Symposium, 1973	
CC	Dykstra, et. al., "Experimental Evaluations of Drill String Dynamics", Amoco Report Number SPE 28323, 1994	
CD	Kenner and Isbell, "Dynamic Analysis Reveals Stability of Roller Cone Rock Bits", SPE 28314, 1994	
CE		
GF		

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